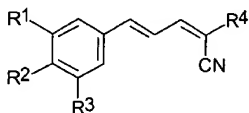


In the claims:

1. **(Currently Amended)** A pharmaceutical composition suitable for oral, intravenous, intraperitoneal, subcutaneous, intramuscular, nasal, intrapulmonary, intrathecal, or rectal administration, comprising a pharmaceutically acceptable diluent or carrier and a compound of Formula I, or a and salts, solvates or hydrates thereof:



I

wherein

R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, OH, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, NH<sub>2</sub>, NH-C<sub>1-6</sub>alkyl, N(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), SH, S-C<sub>1-6</sub>alkyl, O-Si(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub> and halo;

R<sup>3</sup> is selected from the group consisting of H, OH, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, NH<sub>2</sub>, NH-C<sub>1-6</sub>alkyl, N(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), SH, S-C<sub>1-6</sub>alkyl, O-Si(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), NO<sub>2</sub>, halo and CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>n</sub> Ar;

R<sup>4</sup> is selected from the group consisting of C(X)R<sup>5</sup>, SO<sub>3</sub>Ar, NH<sub>2</sub>, NH-C<sub>1-6</sub>alkyl, N(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), P(O)(OH)<sub>2</sub>, P(O)(OC<sub>1-6</sub>alkyl)<sub>2</sub>, and C(NH<sub>2</sub>)=C(CN)<sub>2</sub>;

X is selected from O, S, NH and N-C<sub>1-6</sub>alkyl;

R<sup>5</sup> is selected from the group consisting of NH<sub>2</sub>, OH, NH(CH<sub>2</sub>)<sub>p</sub>Ar, NH(CH<sub>2</sub>)<sub>p</sub>OH, (CH<sub>2</sub>)<sub>p</sub>OC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, NHNH<sub>2</sub>, NHC(O)NH<sub>2</sub>, NHC(O)C<sub>1-6</sub>alkoxy, N-morpholino and N-pyrrolidino; and

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, NH<sub>2</sub>, NH-C<sub>1-6</sub>alkyl, N(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), SH, S-C<sub>1-6</sub>alkyl, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub> and halo;

n is 0 to 4; and

p is 1-4.

2. **(Currently Amended)** The composition ~~compound~~ according to claim 1, wherein  $R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $C_{1-4}$ alkyl,  $C_{1-4}$ alkoxy,  $NH_2$ ,  $NH-C_{1-4}$ alkyl, SH,  $S-C_{1-4}$ alkyl,  $O-Si(C_{1-4}alkyl)(C_{1-4}alkyl)(C_{1-4}alkyl)$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo.
3. **(Currently Amended)** The composition ~~compound~~ according to claim 2, wherein  $R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $OCH_3$ ,  $O-Si(CH_3)_2(tBu)$ ,  $S-Me$ , SH and  $NO_2$ .
4. **(Currently Amended)** The composition ~~compound~~ according to claim 3, wherein  $R^1$  and  $R^2$  are both OH or  $R^1$  and  $R^2$  are both  $OCH_3$ .
5. **(Currently Amended)** The composition ~~compound~~ according to claim 4, wherein  $R^1$  is  $OCH_3$  and  $R^2$  is OH.
6. **(Currently Amended)** The composition ~~compound~~ according to claim 1, wherein  $R^3$  is selected from the group consisting of H, OH,  $C_{1-4}$ alkyl,  $C_{1-4}$ alkoxy,  $NH_2$ ,  $NH-C_{1-4}$ alkyl,  $N(C_{1-4}alkyl)(C_{1-4}alkyl)$ , SH,  $S-C_{1-4}$ alkyl,  $NO_2$  and halo.
7. **(Currently Amended)** The composition ~~compound~~ according to claim 6, wherein  $R^3$  is selected from the group consisting of H, OH,  $OCH_3$ , SH,  $SMe$ ,  $NO_2$  and halo.
8. **(Currently Amended)** The composition ~~compound~~ according to claim 7, wherein  $R^3$  is selected from the group consisting of H, OH and  $OCH_3$ .
9. **(Currently Amended)** The composition ~~compound~~ according to claim 1, wherein  $R^4$  is selected from the group consisting of  $C(X)R^5$  and  $C(NH_2)=C(CN)_2$ .
10. **(Currently Amended)** The composition ~~compound~~ according to claim 9, wherein  $R^4$  is  $C(X)R^5$ .

11. **(Currently Amended)** The composition compound according to claim 10, wherein X is selected from the group consisting of O and S.
12. **(Currently Amended)** The composition compound according to claim 10, wherein R<sup>5</sup> is selected from the group consisting of NH<sub>2</sub>, OH, NH(CH<sub>2</sub>)<sub>p</sub>Ar, NH(CH<sub>2</sub>)<sub>p</sub>OH and C<sub>1-4</sub>alkoxy.
13. **(Currently Amended)** The composition compound according to claim 12, wherein p is 1-3.
14. **(Currently Amended)** The composition compound according to claim 13, wherein R<sup>5</sup> is selected from the group consisting of NH<sub>2</sub>, OH, NH(CH<sub>2</sub>)<sub>p</sub>Ar, NH(CH<sub>2</sub>)<sub>p</sub>OH and OCH<sub>3</sub>.
15. **(Currently Amended)** The composition compound according to claim 14, wherein p is 1-2.
16. **(Currently Amended)** The composition compound according to claim 1, wherein Ar is an unsubstituted phenyl group or a phenyl group substituted with 1-4 substituents optionally selected from the group consisting of OH, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, NH<sub>2</sub>, NH-C<sub>1-6</sub>alkyl, N(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), SH, S-C<sub>1-6</sub>alkyl, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub> and halo.
17. **(Currently Amended)** The composition compound according to claim 14, wherein Ar is an unsubstituted phenyl group or a phenyl group substituted with 1-4 substituents optionally selected from the group consisting of OH, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, NH<sub>2</sub>, NH-C<sub>1-6</sub>alkyl, N(C<sub>1-6</sub>alkyl)(C<sub>1-6</sub>alkyl), SH, S-C<sub>1-6</sub>alkyl, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub> and halo.
18. **(Currently Amended)** The composition compound according to any of claims 16 and 17, wherein Ar is an unsubstituted phenyl group or phenyl group substituted with 1-2 substituents optionally selected from the group consisting of OH, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, NH<sub>2</sub>, NH-C<sub>1-4</sub>alkyl, N(C<sub>1-4</sub>alkyl)(C<sub>1-4</sub>alkyl), SH, S-C<sub>1-4</sub>alkyl, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub> and halo.

19. **(Currently Amended)** The composition compound according to claim 18, wherein Ar is an unsubstituted phenyl group or phenyl group substituted with 1-2 substituents optionally selected from the group consisting of OH, OCH<sub>3</sub>, NH<sub>2</sub>, NHCH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub>, SH, SCH<sub>3</sub>, CF<sub>3</sub>, OCF<sub>3</sub> and halo.

20. **(Currently Amended)** The composition compound according to claim 19, wherein Ar is selected from the group consisting of phenyl and 3,4-dihydroxyphenyl.

21. **(Currently Amended)** The composition compound according to claim 1, wherein the compound is selected from the group consisting of:

*(E,E)*-2-(benzylamido)-3-styrylacrylonitrile (CR1);

*(E,E)*-2-(benzylamido)-3-(3,4-dimethoxystyryl)acrylonitrile (CR2);

*(E,E)*-2-(benzylamido)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR3);

*(E,E)*-2-(benzylamido)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4);

*(E,E)*-2-(phenylethylamido)-3-(3,4-dimethoxystyryl)acrylonitrile (CR5);

*(E,E)*-2-(phenylethylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR8);

*(E,E)*-2-(phenylpropylamido)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR9);

*(E,E)*-2-(3,4-dihydroxybenzylamido)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11);

*(E,E)*-2-thioacetamido-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR12);

*(E,E)*-2-acetamido-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR13);

*(E,E)*-2-carboxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR14);

*(E,E)*-2-carbomethoxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR15);

*(E,E)*-2-aminocarbonylacetamido-3-[3,4-bis(t-butyl dimethylsilyloxy)styryl]acrylonitrile (CR16);

*(E,E)*-2-acetamido-3-(3,4-dihydroxystyryl)acrylonitrile (CR17);

*(E,E)*-2-(benzylaminocarbonyl)-3-[(3,4-bis(t-butyl dimethylsilyloxy)styryl)]acrylonitrile (CR18);

*(E,E)*-2-(3,4-dihydroxybenzylamido)-3-styrylacrylonitrile (CR19);

(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonylde)-3-[3,4-bis(t-butylidimethylsilyloxy)styryl]acrylonitrile (CR20);  
(*E,E*)-2-(3,4-dihydroxybenzylamido)-3-(3,4-dihydroxystyryl)acrylonitrile (CR21);  
(*E,E*)-2-( $\beta$ -ethanolamido)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR24);  
(*E,E*)-2-(benzylaminocarbonylde)-3-(4-nitrostyryl)acrylonitrile (CR27);  
(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonylde)-3-(4-nitrostyryl)acrylonitrile (CR28);  
and  
(*Z,E*)-2-(1-amino-2,2-dicyanoethenyl)-3-(4-nitrostyryl)acrylonitrile (CR29).

22. (**Currently Amended**) The composition compound according to claim 21, selected from the group consisting of:

(*E,E*)-2-(benzylaminocarbonylde)-3-styrylacrylonitrile (CR1);  
(*E,E*)-2-(benzylaminocarbonylde)-3-(3,4-dimethoxystyryl)acrylonitrile (CR2);  
(*E,E*)-2-(benzylaminocarbonylde)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR3);  
(*E,E*)-2-(benzylamido)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4);  
(*E,E*)-2-(phenylethylaminocarbonylde)-3-(3,4-dimethoxystyryl)acrylonitrile (CR5);  
(*E,E*)-2-(phenylpropylaminocarbonylde)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR9);  
(*E,E*)-2-(3,4-dihydroxybenzylamido)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11);  
(*E,E*)-2-aminothiocabonylthioacetamido-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR12);  
(*E,E*)-2-aminocarbonylacetamido-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR13);  
(*E,E*)-2-carboxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR14); and  
(*E,E*)-2-carbomethoxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR15);  
(*E,E*)-2-acetamido-3-(3,4-dihydroxystyryl)acrylonitrile (CR17);  
(*E,E*)-2-(3,4-dihydroxybenzylamido)-3-styrylacrylonitrile (CR19);  
(*E,E*)-2-(3,4-dihydroxybenzylamido)-3-(3,4-dihydroxystyryl)acrylonitrile (CR21); and  
(*E,E*)-2-( $\beta$ -ethanolamido)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR24).

23. **(Currently Amended)** The composition ~~compound~~ according to claim 22, selected from the group consisting of:
- (*E,E*)-2-(benzylaminocarbonyl~~de~~)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4);
- (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl~~de~~)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11);
- (*E,E*)-2-aminocarbonylacetamide-3-(3,4-dihydroxystyryl)acrylonitrile (CR17);
- (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl~~de~~)-3-styrylacrylonitrile (CR19);
- (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl~~de~~)-3-(3,4-dihydroxystyryl)acrylonitrile (CR21); and
- (*E,E*)-2-(β-ethanolaminocarbonyl~~de~~)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR24).
24. **(Currently Amended)** The ~~compound~~ A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-(benzylaminocarbonyl~~de~~)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4).
25. **(Currently Amended)** The ~~compound~~ A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl~~de~~)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11).
26. **(Currently Amended)** The ~~compound~~ A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19) ~~(*E,E*)-2-(3,4-dihydroxybenzylamide)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11).~~
27. (Cancelled)
28. **(Currently Amended)** A method of modulating cell proliferation comprising administering an effective amount of a ~~compound~~ composition of claim 23 ~~to modulate cell proliferation~~ to a cell or animal in need thereof.

29. **(Currently Amended)** A method of inhibiting cell proliferation comprising administering an effective amount of a ~~compound~~ composition of claim 23 ~~to inhibit cell proliferation~~ to a cell or animal in need thereof.
30. **(Original)** The method of claim 29, wherein the cell proliferation that is inhibited is cancer cell proliferation.
31. **(Currently Amended)** A method of treating cancer comprising administering to an animal in need thereof an effective amount of a composition ~~compound~~ of claim 23.
32. **(Currently Amended)** The method of claim 30 or 31, wherein said cancer is a hematopoietic cell cancer.
33. **(Currently Amended)** The method of claim 30 or 31, wherein said cancer is a leukemia, a lymphoma, a myeloma or a carcinoma.
34. **(Currently Amended)** The method of claim 33, wherein said leukemia is acute lymphoblastic leukemia, Philadelphia+ leukemia, Philadelphia- leukemia, acute myelocytic leukemia, chronic myeloid leukemia, chronic lymphocytic leukemia or juvenile myelomonocyte leukemia.
35. **(Currently Amended)** The method of claim 34, wherein said leukemia is acute lymphoblastic leukemia.
36. **(Currently Amended)** A method of modulating cell proliferation, comprising administering an effective amount of a ~~compound capable of modulating cell proliferation according to claim 1~~ or a composition of claim 1 ~~27~~ to a cell or animal in need thereof.
37. **(Currently Amended)** A method of inhibiting cell proliferation, comprising administering an effective amount of a ~~compound capable of inhibiting cell proliferation~~

~~according to claim 1 or a composition according to claim 1~~ 27 to a cell or animal in need thereof.

38. **(Currently Amended)** A method of inhibiting cancer cell proliferation, comprising administering an effective amount of ~~a compound capable of inhibiting cancer cell proliferation according to any one of claim 1 or a composition according to claim 1~~ 27 to a cell or animal in need thereof.

39. (Cancelled)

40. **(Currently Amended)** A method according to claim 38 ~~or 39~~, wherein said cancer is a hematopoietic cell cancer.

41. **(Currently Amended)** A method according to claim 38 ~~or 39~~, wherein said cancer is a leukemia, a lymphoma, a myeloma or a carcinoma.

42. **(Currently Amended)** A method according to claim 41, wherein said leukemia is acute lymphoblastic leukemia, aggressive Philadelphia+ leukemia, acute myelocytic leukemia, chronic myeloid leukemia, chronic lymphocytic leukemia or juvenile myelomonocyte leukemia,

43. **(Currently Amended)** A method according to claim 42, wherein said leukemia is acute lymphoblastic leukemia.

44. (New) A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-carboxy-3-(3,4-dihydroxystyryl)acrylonitrile.

45. (New) A compound selected from:

(*E,E*)-2-(phenylethylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR8);

(*E,E*)-2-aminocarbonyl-3-[3,4-bis(*t*-butyldimethylsilyloxy)styryl]acrylonitrile (CR16);



(*E,E*)-2-(benzylaminocarbonyl)-3-[3,4-bis(t-butyl dimethylsilyloxy)styryl]acrylonitrile (CR 18);

(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-[3,4-bis(t-butyl dimethylsilyloxystyryl)]acrylonitrile (CR20);

(*E,E*)-2-(benzylaminocarbonyl)-3-(4-nitrostyryl)acrylonitrile (CR27);

(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(4-nitrostyryl)acrylonitrile (CR28); and

(*Z,E*)-2-(1-amino-2, 2-dicyanoethenyl)-3-(4-nitrostyryl)acrylonitrile (CR29).

46. (New) A compound selected from:

(*E,E*)-2-(benzylaminocarbonyl)-3-styrylacrylonitrile (CR1);

(*E,E*)-2-(benzylaminocarbonyl)-3-(3,4-dimethoxystyryl)acrylonitrile (CR2);

(*E,E*)-2-(benzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR3);

(*E,E*)-2-(phenylethylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR5);

(*E,E*)-2-(phenylpropylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR9);

(*E,E*)-2-aminothiocabonyl-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR12);

(*E,E*)-2-aminocarbonyl-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR13);

(*E,E*)-2-carbomethoxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR15).

47. (New) A compound selected from:

(*E,E*)-2-(benzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4);

(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11);

(*E,E*)-2-aminocarbonyl-3-(3,4-dihydroxystyryl)acrylonitrile (CR17);

(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19);

(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR21); and

(*E,E*)-2-( $\beta$ -ethanolaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR24).

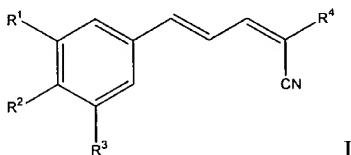
48. (New) A compound (*E,E*)-2-benzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4).

49. (New) A compound (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11).

50. (New) A compound (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19).

51. (New) A compound (*E,E*)-2-carboxy-3-(3,4-dihydroxystyryl)acrylonitrile.

52. (New) A compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

$R^1$  and  $R^2$  are each independently selected from the group consisting of OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkyl,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

$R^3$  is selected from the group consisting of H, OH,  $C_{1-6}alkyl$ ,  $C_{1-6}alkoxy$ ,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ , halo and  $CH_2-S-(CH_2)_nAr$ ;

$R^4$  is selected from the group consisting of  $C(X)R^5$ ,  $SO_3Ar$ ,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $P(O)(OH)_2$ ,  $P(O)(OC_{1-6}alkyl)_2$ , and  $C(NH_2)=C(CN)_2$ ;

X is selected from O, S, NH and  $N-C_{1-6}alkyl$ ;

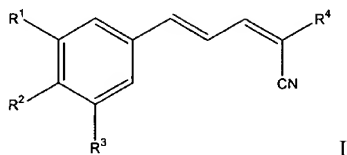
$R^5$  is selected from the group consisting of  $NH_2$ ,  $NH(CH_2)_pAr$ ,  $NH(CH_2)_pOH$ ,  $(CH_2)_pOC_{1-6}alkyl$ ,  $C_{1-6}alkyl$ ,  $C_{1-6}alkoxy$ ,  $NHNH_2$ ,  $NHC(O)NH_2$ ,  $NHC(O)C_{1-6}alkoxy$ , N-morpholino and N-pyrrolidino; and

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH,  $C_{1-6}alkyl$ ,  $C_{1-6}alkoxy$ ,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

n is 0 to 4; and

p is 1-4.

53. (New) A compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

$R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkyl,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

$R^3$  is selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ , halo and  $CH_2-S-(CH_2)_nAr$ ;

$R^4$  is selected from the group consisting of  $C(X)R^5$ ,  $SO_3Ar$ ,  $NH_2$ ,  $NH-C_{1-6}alkyl$  and  $P(O)(OH)_2$ ;

X is selected from O, S, NH and  $N-C_{1-6}alkyl$ ;

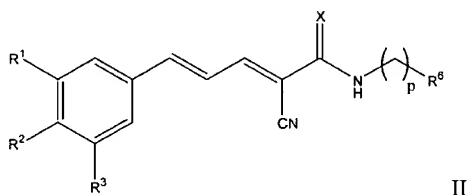
$R^5$  is selected from the group consisting of  $NH(CH_2)_pAr$ ,  $NH(CH_2)_pOH$ ,  $(CH_2)_pOC_{1-6}alkyl$ ,  $NHNH_2$ ,  $NHC(O)NH_2$ ,  $NHC(O)C_{1-6}alkoxy$ , N-morpholino and N-pyrrolidino; and

Ar is an aromatic group, unsubstituted with 1-4 substituents, independently selected from the group consisting of OH,  $C_{1-6}alkyl$ ,  $C_{1-6}alkoxy$ ,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

n is 0 to 4; and

p is 1-4.

54. (New) A compound of Formula II, or a salt, solvate or hydrate thereof:



wherein

$R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkyl,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$ , and halo;

$R^3$  is selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ , halo and  $CH_2-S-(CH_2)_nAr$ ;

$R^6$  is selected from the group consisting of Ar, OH and  $OC_{1-6}alkyl$ ;

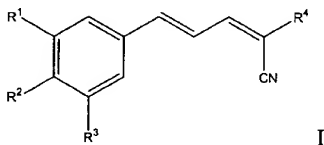
Ar is an aromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

X is selected from O and S;

n is 0-4; and

p is 1-4.

55. (New) A compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

$R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

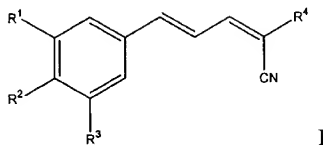
$R^3$  is selected from the group consisting of  $C_{1-6}$ alkyl,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ , halo and  $CH_2-S-(CH_2)_nAr$ ;

$R^4$  is  $CO_2H$ ;

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo; and

n is 0 to 4.

56. (New) A compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

$R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkyl,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

$R^3$  is selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ , halo and  $CH_2-S-(CH_2)_nAr$ ;

$R^4$  is  $CO_2H$ ;

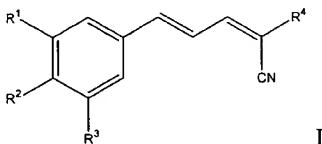
Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}alkyl$ ,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}alkyl$ ,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

n is 0 to 4; and

p is 1-4,

with the proviso that at least one of  $R^1$  and  $R^2$  is selected from the group consisting of  $C_{1-6}alkyl$ ,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $CF_3$ ,  $OCF_3$  and halo.

57. (New) A compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

$R^1$  and  $R^2$  are each independently selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $NH_2$ ,  $NH-C_{1-6}$ alkyl, SH,  $S-C_{1-6}$ alkyl,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $CF_3$ ,  $OCF_3$  and halo;

$R^3$  is selected from the group consisting of H, OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkyl,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}$ alkyl,  $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$ ,  $NO_2$ , halo and  $CH_2-S-(CH_2)_nAr$ ;

$R^4$  is  $CO_2H$ ;

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $NH_2$ ,  $NH-C_{1-6}$ alkyl,  $N(C_{1-6}alkyl)(C_{1-6}alkyl)$ , SH,  $S-C_{1-6}$ alkyl,  $NO_2$ ,  $CF_3$ ,  $OCF_3$  and halo;

n is 0 to 4; and

p is 1-4,

with the proviso that  $R^1$ ,  $R^2$  and  $R^3$  are not all H.

58. (New) The compound (*E,E*)-2-carboxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR-14).